UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 21 2015

REPLY TO THE ATTENTION OF: E-19J

Cindy Bladey, Chief
Rules, Announcements and Directives Branch
Office of Administration
U.S. Nuclear Regulatory Commission
Mail Stop 16 3WFN-06-A44MP
Washington, DC 20555-0001

Re: **Final Plant-Specific Supplement 55 to the Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Braidwood Station, Units 1 and 2, Braidwood, Will County, Illinois – CEQ# 20150335**

Dear Ms. Bladey:

The U.S. Environmental Protection Agency has reviewed the Final Supplemental Environmental Impact Statement (SEIS) for the above mentioned project. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations found at 40 CFR 1500-1508, and Section 309 of the Clean Air Act. The U.S. Nuclear Regulatory Commission is the lead federal agency under NEPA. Exelon Generation Company, LLC owns and operates Braidwood Station and is the project proponent.

Braidwood Station is a two-unit pressurized-water reactor located in Will County, Illinois. The existing power reactor began commercial operation in 1988, and the current operating licenses (NPF-72 and NPF-77) expire on October 17, 2026 and December 18, 2027, respectively. NRC assessed the impacts of renewing the licenses for an additional 20 years within this Final SEIS and concluded that, "the adverse environmental impacts of license renewal for Braidwood are not so great that preserving the option of license renewal for energy-planning decision makers would be unreasonable" (page 5-2).

EPA issued a May 12, 2015 comment letter in response to the Draft SEIS and rated the document *Environmental Concerns – Adequate Information* due to potential impacts to threatened and endangered species, surface water, and air quality. We also raised concerns regarding NRC's consideration of climate change impacts on future Braidwood operations. NRC's responses to our species and water comments clarify impacts and strengthen protective measures. We understand that consultation with U.S. Fish and Wildlife Service is ongoing, and we appreciate NRC's commitment to include consultation results in the Record of Decision.

Our only outstanding recommendations relate to our Draft SEIS *Comment 013-8-Greenhouse Gas Emissions and Climate Change* and *Comment 013-09-Air Quality*. We understand that the "NRC cannot impose mitigation measures or standards on its nuclear power plant licensees that are not related to public health and safety from radiological hazards or common defense and

security" (pages A-78 and A-80). We are not asking NRC to impose measures or standards related to air emissions. Rather, we ask that the NRC commit to share and promote the following recommendations with the applicant in order to facilitate the spread of best practices for protecting human health and the environment.

Recommendations:

Greenhouse Gas Emissions

Encourage the applicant to identify opportunities to minimize greenhouse gas emissions associated with refurbishment activities and overall facility operations and maintenance. For example, consider energy efficiency and renewable energy in the purchase of operational equipment, maintenance equipment, and vehicles. Cleaner energy options can yield cost savings for the applicant by reducing energy demands while also lowering the facility's contribution toward global climate change.

Air Quality

Encourage the applicant to use the following practices for all applicable activities powered by diesel fuel. Such practices can minimize local health impacts from diesel emissions as well as the facility's greenhouse gas footprint.

- Use low-sulfur diesel fuel (15 ppm sulfur maximum) in construction vehicles and equipment.
- Retrofit engines with an exhaust filtration device to capture diesel particulate matter before it enters the construction site.
- Position the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, reducing the fume concentration to which personnel are exposed.
- Use catalytic converters to reduce carbon monoxide, aldehydes, and hydrocarbons in diesel fumes. These devices must be used with low sulfur fuels.
- Use enclosed, climate-controlled cabs pressurized and equipped with high efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes. Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first.
- Regularly maintain diesel engines, which is essential to keep exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance. For example, blue/black smoke indicates that an engine requires servicing or tuning.
- Reduce exposure through work practices and training, such as turning off engines when vehicles are stopped for more than a few minutes, training diesel-equipment operators to perform routine inspection, and maintaining filtration devices.
- Repower older vehicles and/or equipment with diesel- or alternatively-fueled engines certified to meet newer, more stringent emissions standards. Purchase new vehicles that are equipped with the most advanced emission control systems available.
- Use electric starting aids such as block heaters with older vehicles to warm the engine to reduce diesel emissions.

We thank the NRC project team for the detailed responses to our comments. We appreciate the opportunity to review this Final SEIS, and we appreciate our working relationship with NRC staff. If you have any questions, please feel free to contact Jen Blonn of my staff at 312-886-6394 or blonn.jennifer@epa.gov.

Sincerely,

Kenneth A. Westlake
Chief, NEPA Implementation Section
Office of Enforcement and Compliance Assurance

CC Via Email: Nathan Grider, Illinois Department of Natural Resources
Shawn Cirton, U.S. Fish and Wildlife Service
Alan Keller, Illinois Environmental Protection Agency
Lois James, U.S. Nuclear Regulatory Commission
Richard Baum, U.S. Nuclear Regulatory Commission